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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,103	02/10/2004	Jacky Tsai	VIAP0083USA	2102

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EXAMINER	
PATEL, HETUL B	
ART UNIT	**PAPER NUMBER**
2186	

DATE MAILED: 09/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/708,103	TSAI, JACKY	
	Examiner	Art Unit	
	Hetul Patel	2186	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *03* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 August 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *12-17 and 19-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *12-17* is/are allowed.

6)☒ Claim(s) *19-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *07/13/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to the communication filed on August 22, 2006. This amendment has been entered and carefully considered. Claims 19 is amended and claims 12-17 and 19-28 are again presented for examination.

2. The IDS filed on 07/13/2006 has been received and carefully considered.

3. The rejection of claims 19-28 under 35 USC 112 2nd paragraph has been withdrawn.

4. Claims 12-17 are previously allowed.

5. Claims 19-28 are rejected in view of new grounds of rejection.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 19-28 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

As per claim 19, the claimed invention is directed towards an abstract idea, per se, but do not transform an article or physical object to a different state or thing and do not produce a tangible result. To direct the claimed invention to statutory subject matter, the claim must be amended to include performing a physical transformation that produces a tangible result, such as storing the corresponding address, the single bit-pattern or the result of the determination in a memory.

As per claims 20-28, the additional limitations disclosed do not direct the claimed inventions towards statutory subject matter. To direct the claimed inventions to statutory subject matter, the Examiner directs the applicant to the 35 U.S.C. 101 rejection of claims 19 above.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 19 and 25-28 are provisionally rejected on the ground of nonstatutory double patenting over claim19-20, 24-26, 28-29 and 31-33 of copending Application No. 10/707,645. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows:

Instant Application (10/708,103)	**Co-pending application (10/707,645)**
Claim 19	Claims 19, 28
Claim 25	Claims 24, 31
Claim 26	Claims 25, 32
Claim 27	Claims 26, 33
Claim 28	Claims 20, 29

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Although conflicting claims of co-pending application are not identical, they contain(s) every element of corresponding claims of the instant application and as such anticipate(s) claims of the instant application.

"A later patent claim is not patentably distinct from an earlier patent claim if the later claim is obvious over, or **anticipated by**, the earlier claim. In re Longi, 759 F.2d at 896, 225 USPQ at 651 (affirming a holding of obviousness-type double patenting because the claims at issue were obvious over claims in four prior art patents); In re

Berg, 140 F.3d at 1437, 46 USPQ2d at 1233 (Fed. Cir. 1998) (affirming a holding of obviousness-type double patenting where a patent application claim to a genus is anticipated by a patent claim to a species within that genus). " ELI LILLY AND COMPANY v BARR LABORATORIES, INC., United States Court of Appeals for the Federal Circuit, ON PETITION FOR REHEARING EN BANC (DECIDED: May 30, 2001).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 19-22 and 24-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Manning (USPN: 6,321,316).

As per claim 19, Manning teaches a memory address decoding method for determining an objective section of a given address in a memory (i.e. the combination of 16a, 16b and 16c in Fig 1), wherein the memory is formed by at least one section (i.e. 16a in Fig. 1), which comprises at least one memory unit having a corresponding address, the method comprising obtaining at least one bit-pattern (i.e. 10-bit packets word) according to a common pattern of bits of the addresses; comparing the given address with each bit-pattern to determine the objective section of the given address (e.g. see Col. 3, lines 12-29 and Fig. 1).

As per claim 20, Manning teaches the claimed invention as described above and furthermore, Manning teaches that the bits of the given address (ID register storing ID info about 16a, 16b and 16c in Fig 1) are correspondingly compared to the bit-pattern (i.e. 10-bit packets word) (e.g. see Col. 3, lines 12-29 and Fig. 1).

As per claim 21, Manning teaches the claimed invention as described above and furthermore, Manning teaches that each section comprises at least one bit pattern (ID register storing ID info about each of 16a, 16b and 16c in Fig 1) (See Figs. 1-2).

As per claim 22, Manning teaches the claimed invention as described above and furthermore, Manning teaches that the method further comprising the step of comparing the given address (ID register storing ID info about 16a, 16b and 16c in Fig 1) with at least one ending address to determine an objective group of the objective section (i.e. to determine one of 16a, 16b and 16c in Fig 1) (e.g. see Col. 3, lines 12-29 and Fig. 1).

As per claim 24, Manning teaches the claimed invention as described above and furthermore, Manning teaches that the given address (ID register storing ID info about 16a, 16b and 16c in Fig 1) is compared with bit patterns of the objective group (i.e. 10-bit packets word) (e.g. see Col. 3, lines 12-29 and Fig. 1).

As per claims 25 and 26, Manning teaches the claimed invention as described above and furthermore, Manning teaches that the bit pattern is obtained by all (therefore, partial is part of all) common bits (ID register storing ID (bits) info about 16a, 16b and 16c in Fig 15) of the address in each section (e.g. see Col. 3, lines 12-29 and Fig. 1).

As per claim 27, Manning teaches the claimed invention as described above and furthermore, Manning teaches that the given address (ID register storing ID info about 16a, 16b and 16c in Fig 1) is located in the objective section (i.e. one of 16a-16c in Fig. 1) when bits of the given address completely match the bit pattern (i.e. 10-bit packets word) of the objective section (e.g. see Col. 3, lines 12-29 and Fig. 1).

As per claim 28, Manning teaches the claimed invention as described above and furthermore, Manning teaches that each section (i.e. 16a-16c in Fig. 1) is formed by at least one memory module (e.g. see Col. 3, lines 12-29 and Fig. 1).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 19-22, 25-26 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koos (USPN: 4,400,794) in view of Schmisseur et al. (USPN: 6,128,718) hereinafter, Schmisseur.

As per Claim 19, Koos discloses a memory address decoding method for determining if a given address (i.e. memory address location, column 1 line 22) is located in one of a plurality of sections *(memory boards, column 1 line 13)*, each section having a plurality of memory units and each memory unit having a unique corresponding address *(memory locations, column 1 line 18)*, the corresponding

address using the binary system *(column 1 lines 39-44)*, the method comprising: determining if the given address is located in one of the sections *(column 3 lines 20-62)*. Koos does not disclose obtaining at least one bit-pattern according to a common pattern of bits of the addresses; and comparing the given address with each bit-pattern to determine the objective section of the given address. Schmisseur discloses obtaining a single bit-pattern *("a single bit-pattern" is interpreted to be claiming exactly one bit-pattern, as opposed to a pattern consisting of a single bit)* for each section from all corresponding addresses *(column 4 lines 55-59)*; and if the comparative bits *(additional addressing bits, column 4 line 65)* of the given address matches those in a bit-pattern, the given address is located in the section based on the comparison *(column 4 lines 55-59)*. Koos and Schmisseur are analogous art in that they both deal with memory mapping and addressing. At the time of the invention it would have been obvious to use Schmisseur's base address register as the means Koos uses to describe a memory's size and start address. The motivation for doing so would have been that Schmisseur's register provides a proper response to address space queries by host processors that use procedures such as the one defined by the PCI Specification *(Schmisseur, column 8 lines 40-43)*. Therefore it would have been obvious to combine the system of Koos with Schmisseur's base address register for the benefit of responding correctly to PCI conforming devices.

As per claim 20, the combination of Koos and Schmisseur teaches the claimed invention as described above and furthermore, Schmisseur teaches that the bits of the

given address *(additional addressing bits, column 4 line 65)* are correspondingly compared to the bit-pattern *(column 4 lines 55-59)*.

As per claim 21, the combination of Koos and Schmisseur teaches the claimed invention as described above and furthermore, Schmisseur teaches that each section comprises at least one bit pattern *(column 4 lines 55-59)*.

As per claim 22, the combination of Koos and Schmisseur teaches the claimed invention as described above and furthermore, Schmisseur teaches that the method further comprising the step of comparing the given address with at least one ending address to determine an objective group of the objective section *(column 4 lines 55-59)*.

As per claim 25, the combination of Koos and Schmisseur teaches the claimed invention as described above and furthermore, Schmisseur teaches that the bit pattern is obtained by all common bits *(additional addressing bits, column 4 line 65)* of the address in each section *(column 4 lines 55-59)*.

As per claim 26, the combination of Koos and Schmisseur teaches the claimed invention as described above and furthermore, Schmisseur teaches that the bit pattern is obtained by partial common bits *(additional addressing bits, column 4 line 65)* of the address in each section *(column 4 lines 55-59)*.

As per claim 28, the combination of Koos and Schmisseur teaches the claimed invention as described above and furthermore, Koos teaches that each section is formed by at least one memory module *(memory boards, column 1 line 13)*.

Allowable Subject Matter

9. Claim 23 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hetul Patel whose telephone number is 571-272-4184. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim can be reached on 571-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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